

Name \_\_\_\_\_ Date \_\_\_\_\_  
Period \_\_\_\_\_

### Test Tube Wonders!

Examine the following items and describe three properties of each of them and determine whether each is an element, compound, or mixture.

Test Tube Number	Test Material	Chemical Formula	Three Properties	Element, Compound, or Mixture?
1	Sodium Bicarbonate	$\text{NaHCO}_3$		
2	Hydrochloric Acid	$\text{HCl}$		
3	Aluminum Foil	$\text{Al}$		
4	Copper Chloride	$\text{CuCl}_2$		
5	Sand and Iron Filings	$\text{SiO}_2 + \text{Fe}$		
6	Zinc	$\text{Zn}$		
7	Copper	$\text{Cu}$		
8	Potassium Dichromate	$\text{K}_2\text{Cr}_2\text{O}_7$		
9	Water	$\text{H}_2\text{O}$		
10	Salt Water	$\text{NaCl} + \text{H}_2\text{O}$		

Questions:

1. Explain the difference between an element and a compound.

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2. How can you identify the difference between an element and a compound by looking at the chemical formula? Explain.

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3. What is the difference between a heterogeneous and homogeneous mixture?

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